



# ***STIC Search Report*** **EIC 2800**

**STIC Database Tracking Number: 155040**

**TO: Monica Lewis**  
**Location: JEF-5A30**  
**Art Unit : 2822**  
**Wednesday, June 15, 2005**  
**Case Serial Number: 10/676,547**

**From: Jeff Harrison**  
**Location: EIC 2800**  
**JEF-4B68**  
**Phone: 22511**

## **Search Notes**

Re: Power delivery using an IHS

Please find attached the search history and the edited search results from Chemical Abstracts and patent and nonpatent literature.

I recommend you browse the results.

If you would like more searching on this case, or if you have questions or comments, please let me know.

Respectfully,  
Jeff Harrison

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FILE 'HCAPLUS' ENTERED AT 16:16:06 ON 15 JUN 2005

E US20050067691/PN

L1 22 SEA ABB=ON PLU=ON INTEGRATED HEAT SPREADER  
L2 0 SEA ABB=ON PLU=ON ELECTRIC##(1W)RESIST##### AND L1  
L3 2 SEA ABB=ON PLU=ON L1 AND RESISTANCE  
L4 0 SEA ABB=ON PLU=ON L1 AND RESISTIVITY  
D L3 ALL  
D L3 ALL 2  
E HEAT SINKS/CT  
E E3+ALL/CT  
L5 78542 SEA ABB=ON PLU=ON "HEAT SINKS"/CT OR "COOLING APPARATUS"/CT  
OR "THERMAL CONDUCTORS"/CT OR (THERMAL#### OR HEAT####) (2A) (SPR  
EAD#### OR MANAG##### OR DISSIPAT##### OR REJECT##### OR  
DIFFUS##### OR ABAT##### OR REMOV#####)  
L6 772 SEA ABB=ON PLU=ON L5 AND INTEGRAT##### (3A) (THERMAL#### OR  
HEAT#### OR SPREAD##### OR MANAG##### OR DISSIPAT##### OR  
REJECT##### OR DIFFUS##### OR ABAT##### OR REMOV#####)  
L7 6 SEA ABB=ON PLU=ON L5 AND ?CONNECT? (1A) EDGE  
L8 98 SEA ABB=ON PLU=ON L5 AND POWER (2A) (LINE OR CONDUIT OR  
CONDUCTOR OR METAL##### OR VIA OR TRACE OR STRIP OR STRIPE)  
L9 511 SEA ABB=ON PLU=ON L5 AND (EDGE OR ?CONNECT?) (2A) (POWER OR  
LINE OR CONDUIT OR CONDUCTOR OR METAL##### OR VIA OR TRACE OR  
STRIP OR STRIPE)  
L10 2 SEA ABB=ON PLU=ON L5 AND (?GROOV? (5A) ?CAVIT?)  
L11 2 SEA ABB=ON PLU=ON L5 AND (?TRENCH? (5A) ?CAVIT?)  
L12 1 SEA ABB=ON PLU=ON L5 AND (?TRENCH? (5A) ?GROOV?)

FILE 'REGISTRY' ENTERED AT 16:24:09 ON 15 JUN 2005

L13 146086 SEA ABB=ON PLU=ON EPOXY OR SILICA  
L14 4 SEA ABB=ON PLU=ON L13(L) (INSULAT##### OR ISOLAT#####) OR  
(SILICA OR SIO OR SIO2 OR SI DIOXIDE OR SILICON DIOXIDE OR  
EPOX#### OR RESIN OR NOVOLAK) (3A) (INSULAT##### OR ISOLAT#####)

FILE 'HCAPLUS' ENTERED AT 16:25:55 ON 15 JUN 2005

L15 2 SEA ABB=ON PLU=ON L14  
L16 44439 SEA ABB=ON PLU=ON L13(L) (INSULAT##### OR ISOLAT#####) OR  
(SILICA OR SIO OR SIO2 OR SI DIOXIDE OR SILICON DIOXIDE OR  
EPOX#### OR RESIN OR NOVOLAK) (3A) (INSULAT##### OR ISOLAT#####)  
L17 6951 SEA ABB=ON PLU=ON (POWER OR EDGE OR CONDUIT OR ?CONNECT?) (4A)  
(?CAVIT? OR ?GROOV? OR ?TRENCH?)  
E ELECTRICAL RESISTANCE/CT  
E E3+ALL/CT  
E E2+ALL/CT  
L18 214603 SEA ABB=ON PLU=ON ("ELECTRIC IMPEDANCE"/CT OR "ELECTRIC  
RESISTANCE"/CT) OR ("CONTACT RESISTANCE"/CT OR "ELECTRIC  
ACTIVITY (L) RESISTANCE"/CT OR "ELECTROLYTIC POLARIZATION (L)  
RESISTANCE"/CT OR "ERLBACH EFFECT"/CT OR MAGNETORESISTANCE/CT  
OR "GIANT MAGNETORESISTANCE"/CT OR "NEGATIVE MAGNETORESISTANCE"  
/CT OR PIEZOMAGNETORESISTANCE/CT OR "PIEZORESISTANCE (L)  
MAGNETO-"/CT OR "TUNNELING MAGNETORESISTANCE"/CT OR "MATTHIESSE  
N'S LAW"/CT OR "NEGATIVE RESISTANCE"/CT OR "MAGNETORESISTANCE  
(L) NEG."/CT OR "NEGATIVE MAGNETORESISTANCE"/CT OR PIEZORESISTA  
NCE/CT OR PIEZOMAGNETORESISTANCE/CT OR "POLARIZATION RESISTANCE  
"/CT OR "SHEET RESISTANCE"/CT OR "SONDHEIMER EFFECT"/CT OR  
"SURFACE RESISTANCE"/CT) OR ELECTRIC#### (2A) RESIST#####

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L19 2031 SEA ABB=ON PLU=ON (L5 OR L6 OR L7 OR L8 OR L9) AND (L15 OR  
L16 OR L17 OR L18)  
D L15 TI 1-2

L20 32839 SEA ABB=ON PLU=ON (REDUC##### OR LESS##### OR DECREAS#####) (3A)ELECTRIC

L21 53711 SEA ABB=ON PLU=ON (REDUC##### OR LESS##### OR DECREAS#####) (3A) (RESISTANCE OR RESISTIVITY)

L22 37 SEA ABB=ON PLU=ON L19 AND L20

L23 95 SEA ABB=ON PLU=ON L19 AND L21

L24 4782 SEA ABB=ON PLU=ON L20 AND L21

L25 8065 SEA ABB=ON PLU=ON (L6 OR L7 OR L8 OR L9) OR L19 OR (L22 OR  
L23 OR L24)

L26 5 SEA ABB=ON PLU=ON L25 AND HEATSINK

L27 467 SEA ABB=ON PLU=ON L25 AND HEAT SINK

L28 140 SEA ABB=ON PLU=ON L25 AND HEAT(W)SPREAD#####

L29 731 SEA ABB=ON PLU=ON (L7 OR L8) OR (L10 OR L11 OR L12) OR (L22  
OR L23) OR (L26 OR L27 OR L28)

L30 729 SEA ABB=ON PLU=ON L29 NOT L3  
E H01L021/IC  
E H01L021-34/IC  
E E3+ALL/CT  
E H01L021-34/IC  
E E3+ALL/IC  
E H01L023-34/IC  
E E3+ALL/IC

L31 4951 SEA ABB=ON PLU=ON (H01L023-34/IC OR H01L023-36/IC OR  
H01L023-367/IC OR H01L023-373/IC OR H01L023-38/IC OR H01L023-40  
/IC OR H01L023-42/IC OR H01L023-427/IC OR H01L023-433/IC OR  
H01L023-44/IC OR H01L023-46/IC OR H01L023-467/IC OR H01L023-473  
/IC)

L32 121 SEA ABB=ON PLU=ON 257717?/NCL

L33 251 SEA ABB=ON PLU=ON L25 AND (L31 OR L32)

L34 843 SEA ABB=ON PLU=ON (L30 OR L33) NOT L3

L35 163 SEA ABB=ON PLU=ON L34 AND ELECTRIC###(2A)RESIST#####

L36 21 SEA ABB=ON PLU=ON L34 AND (?CAVIT? OR ?GROOV? OR ?TRENCH? OR  
VOID OR SPACE) (3A) (POWER OR ?CONDUIT? OR EDGE OR ?CONNECT?)

L37 0 SEA ABB=ON PLU=ON L35 AND L36

L38 8 SEA ABB=ON PLU=ON L36 AND ELECTRIC#####

L39 12 SEA ABB=ON PLU=ON L36 AND POWER

L40 179 SEA ABB=ON PLU=ON L35 OR L38 OR L39

FILE 'REGISTRY' ENTERED AT 16:38:00 ON 15 JUN 2005

L41 3 SEA ABB=ON PLU=ON ALUMINUM/CN OR COPPER/CN OR GRAPHITE/CN

FILE 'HCAPLUS' ENTERED AT 16:39:20 ON 15 JUN 2005

L42 122554 SEA ABB=ON PLU=ON L41(L) (HEAT##### OR THERMAL###) OR (AL  
OR ALUMINUM OR GRAPHIT#### OR CU OR COPPER) (3A) (HEAT OR  
HEATSINK OR THERMAL### OR CONDUCT### OR COOL####)

L43 11 SEA ABB=ON PLU=ON L40 AND (L13 OR L14)

L44 45 SEA ABB=ON PLU=ON L40 AND L42

L45 9 SEA ABB=ON PLU=ON L40 AND ?CAVIT?

L46 4 SEA ABB=ON PLU=ON L40 AND ?GROOV?

L47 2 SEA ABB=ON PLU=ON L40 AND VIAS

L48 8 SEA ABB=ON PLU=ON L44 AND INSULAT####(3A)ELECTRIC#####

L\*\*\* DEL 5624 S L1 OR L7 OR L10-12 OR L26 OR L31-39 OR L43 OR L45-47 OR L48

L49 77 SEA ABB=ON PLU=ON L1 OR L7 OR (L10 OR L11 OR L12) OR L26 OR

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(L36 OR L37 OR L38 OR L39) OR L43 OR (L45 OR L46 OR L47) OR
L48
L50      21 SEA ABB=ON  PLU=ON  L49 AND (?GROOV? OR ?CAVIT?)
          D BIB AB HITSTR TOT
L51      28 SEA ABB=ON  PLU=ON  RESIST#####/TI,AB AND L49
L52      22 SEA ABB=ON  PLU=ON  L51 NOT (L50 OR L3)
          D BIB AB HITSTR TOT
L53      956 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L3 OR L4) OR (L7 OR L8) OR
          (L10 OR L11 OR L12) OR (L22 OR L23) OR (L26 OR L27 OR L28 OR
          L29 OR L30) OR (L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38
          OR L39 OR L40) OR (L43 OR L44 OR L45 OR L46 OR L47 OR L48 OR
          L49 OR L50 OR L51 OR L52)
L54      239 SEA ABB=ON  PLU=ON  L53 NOT P/DT
L55      717 SEA ABB=ON  PLU=ON  L53 NOT L54
L56      SEL PLU=ON  L55 1- PRN :      906 TERMS

FILE 'WPIX, JAPIO' ENTERED AT 16:53:16 ON 15 JUN 2005
L57      1169 SEA ABB=ON  PLU=ON  L56
L58        2 SEA ABB=ON  PLU=ON  L57 AND ?CONNECT?(1A) EDGE
L59      41 SEA ABB=ON  PLU=ON  L57 AND (REDUC##### OR LESS##### OR
          DECREAS#####) (3A) (RESISTANCE OR RESISTIVITY)
L60        4 SEA ABB=ON  PLU=ON  L57 AND (CAVITY OR GROOV#####) (3A) (POWER OR
          CONDUIT OR EDGE OR CONNECTOR)
L61      27 SEA ABB=ON  PLU=ON  L57 AND ELECTRIC##### (3A) (RESISTANCE OR
          RESISTIVITY)
L62      76 SEA ABB=ON  PLU=ON  L57 AND ELECTRIC##### (3A) (INSULAT#####
          OR ISOLAT#####)
L63        3 SEA ABB=ON  PLU=ON  L59 AND L61
L64        5 SEA ABB=ON  PLU=ON  L59 AND L62
L65        4 SEA ABB=ON  PLU=ON  L61 AND L62
L66      149 SEA ABB=ON  PLU=ON  L57 AND H01L023-34?/IC
L67      204 SEA ABB=ON  PLU=ON  L57 AND U11-D02B1?/MC
L68      160 SEA ABB=ON  PLU=ON  L57 AND V04-T03A?/MC
L69      17 SEA ABB=ON  PLU=ON  (L58 OR L59 OR L60 OR L61 OR L62 OR L63 OR
          L64 OR L65) AND L66
L70      23 SEA ABB=ON  PLU=ON  (L58 OR L59 OR L60 OR L61 OR L62 OR L63 OR
          L64 OR L65) AND L67
L71      19 SEA ABB=ON  PLU=ON  (L58 OR L59 OR L60 OR L61 OR L62 OR L63 OR
          L64 OR L65) AND L68
L72        4 SEA ABB=ON  PLU=ON  L69 AND L70
L73        2 SEA ABB=ON  PLU=ON  L69 AND L71
L74        9 SEA ABB=ON  PLU=ON  L70 AND L71
L75      57 SEA ABB=ON  PLU=ON  L58 OR (L60 OR L61) OR (L63 OR L64 OR L65)
          OR L69 OR (L72 OR L73 OR L74)
L76      44 SEA ABB=ON  PLU=ON  (L59 OR L60 OR L61 OR L62) AND (L66 OR L67
          OR L68)
L77      56 SEA ABB=ON  PLU=ON  L58 OR L60 OR (L63 OR L64 OR L65) OR L69
          OR (L72 OR L73 OR L74) OR L76
L78      70 SEA ABB=ON  PLU=ON  (L75 OR L76 OR L77)
L79        3 SEA ABB=ON  PLU=ON  L78 AND 2004-2005/PRY
L80      41 SEA ABB=ON  PLU=ON  L78 AND 2000-2003/PRY
L81        3 SEA ABB=ON  PLU=ON  L78 AND (ISOLAT? OR INSULAT?) AND (CAVITY
          OR GROOV#####)
          D MAX 1-3
L82      14 SEA ABB=ON  PLU=ON  L59 AND L78
L83      14 SEA ABB=ON  PLU=ON  L82 NOT L81
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Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	"6840638"	DERWENT	OR	OFF	2005/06/15 15:37
L2	1	"20050067691"	DERWENT	OR	OFF	2005/06/15 15:43
L3	2489	integrat\$2 near3 heat near3 (spread\$5 or dissipat\$7 or remov\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	OFF	2005/06/15 15:45
L4	214	L3 and (reduc\$5 or less\$6) near2 (resistance\$1 or resistivit\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 15:47
L5	15	L4 and ((conduit\$2 near3 power) or (edge near2 connect\$4))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 15:55
L6	9185	H01I023/34\$6 or 257/717\$6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 15:56
L7	292	L6 and L3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 15:56
L8	1	L7 and thousand\$4 near2 vias	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 15:57
L9	14	L7 and insulat\$6 near3 (lhs or spreader or conduit or power or connector or edge)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 15:59
L10	911	(I3 or I4 or I5 or I6 or I7 or I8 or I9) and (resistivit\$3 or resistance\$2).ti,ab,clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 16:00
L11	7	L10 and (cavity or groov\$3) near5 (power or conduit or connector)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT ; IBM_TDB	OR	ON	2005/06/15 16:01

15jun05 16:16:51 User259284 Session D3206.2

**File 2:INSPEC 1969-2005/Jun W1**  
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Set	Items	Description
S1	55333	ELECTRIC??(1N)RESIST??????????
S2	55450	ELECTRIC????(1N)RESIST??????????
S3	11922	HEATSINK? OR (THERMAL?? OR HEAT?????) (2N) (SINK????? OR DIS- SIPAT????? OR SPREAD?????)
S4	138	S1:S2 AND S3
S5	3	S4 AND ELECTRIC????(2N) (ISOLAT?????? OR INSULAT??????)
S6	89712	R1:R2 OR R7:R9 OR S1:S2
S7	11922	S3 OR 'HEAT SINKS'
S8	194	S6 AND S7
S9	2980	(CAVIT???? OR GROOV????) (5N) (POWER OR CONDUIT?? OR EDGE OR CONNECTOR??)
S10	0	8AND9
S11	18054	(CAVIT???? OR GROOV????) AND (POWER OR CONNECTOR? ?)
S12	4	8AND11
S13	10	S8 AND (INSULAT????? OR ISOLAT?????) (4N)ELECTRIC??????????